

Mega pixel fish-eye panorama camera

Models:
SNC-3342
SNC-6332



SNC-3342



SNC-6332

Dear customer,

Thank you for purchasing a high quality SANTEC device.

We recommend that you read this manual thoroughly before operating your new system for the first time. Please follow all instructions and observe the warnings contained in this manual.

Please contact your local dealer or SANTEC directly if you have any questions or if you wish to claim for a service or warranty.

You will find further information on our website:

www.santec-video.com

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Safety precautions

Caution



Description of symbols



Danger: This symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to a person.



Warning: This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CE compliance

Attention: Any changes or modifications to this appliance which have not been explicitly approved of by the respective regulatory authority, may lead to a prohibition of usage of this appliance.

This appliance complies with the CE guidelines.

Safety instructions

- Before operating the appliance, please read this manual carefully and retain it for further reference.
- Before cleaning the appliance, it has to be switched off and unplugged from the power outlet. Wipe the appliance with a soft damp cloth. Do not use harsh cleansers or aerosols for cleaning. The type label may not be replaced.
- Do not use attachments unless recommended by the manufacturer as they may affect the functionality of the appliance and result in the risk of fire, electric shock or injury.
- Never install the appliance in areas exposed to water or other liquids.
- The appliance has to be installed in a safe and stable location according to the instructions of the manufacturer. Care should be used when moving heavy equipment. Quick stops, excessive force, and uneven surfaces may cause the appliance to fall causing serious injury to persons and damage to objects.
- Openings in the appliance, if any, are provided for ventilation to ensure reliable operation of the appliance and to protect it from overheating. These openings must not be covered or blocked. Please make sure that the appliance does not overheat.
- The appliance should only be operated from the type of power source indicated on the marking label. If you are not sure of the type of power supplied at the installation location, please contact your local dealer.
- An appliance which is powered through a polarized plug (a plug with one blade wider than the other) will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug into the outlet, try reversing the plug. Do not defeat the safety purpose of the polarized plug.
- If the appliance is powered through a grounding-type plug, the plug will only fit into a grounding-type power outlet. This is a safety feature. If your outlet does not have the grounding plug receptacle, contact your local electrician.
- Route power cords and cables in a manner to protect them from damage by being walked on or pinched by items placed upon or against them.
- For protection of the appliance during a lightning storm or when it is left unattended and unused for a longer period, unplug the appliance from the wall outlet. Disconnect any antennas or cable systems that may be connected to the appliance. This will prevent damage to the appliance due to lightning or power-line surges.
- Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
- Never insert items into the openings of the appliance. They may touch parts under electric current which may cause an electric shock.
- Never pour any liquids over the appliance.

- In case of any operating interruption or a complete operating failure please switch off the appliance and disconnect it from the wall outlet. Never attempt to service or repair the appliance yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- When replacement parts are required, be sure that the service technician uses replacements parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
- Upon completion of any service or repairs to the appliance, ask the service technician to perform safety checks to verify that the appliance is in proper operating condition.
- The appliance should only be installed by qualified service personnel and has to comply with local specifications and regulations.
- Never point the camera at an object with a high degree of luminance. Bright vertical or horizontal lines can result in a distortion (outshine) of the entire image on the monitor. This artifact is not an error but a particularity of semiconductor CCDs when they are directly exposed to a powerful light source.
- If the camera is operated in locations with extremely differing light conditions, the aperture has to be adapted.
- Please respect the local legal regulations on waste if you need to dispose of discarded appliances.



This symbol means that electrical appliances need to be disposed of properly and not simply with unsorted household refuse. Please respect local regulations on waste disposal.

About this user manual

This manual aims at assisting the user on how to operate cameras SNC-3342 and SNC-6332.

This manual is subject to rigid quality control. However, no guarantee can be given that mistakes are not present. We reserve the right to make changes to the manual without prior notice.

Before operating the appliance, please read this manual carefully and retain it for further reference.

Verify that all appliance items are included in the delivery. Should items be missing, do not operate the appliance and contact your local dealer.

Never attempt to repair the appliance yourself. This should only be done by qualified service personnel.

Improper handling of the appliance will invalidate the warranty.

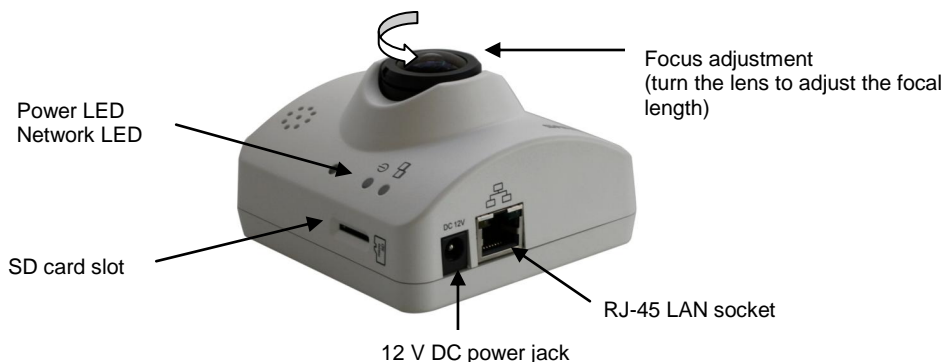
Subject to technical changes without prior notice. Errors excepted.

QUICK INSTALLATION GUIDE

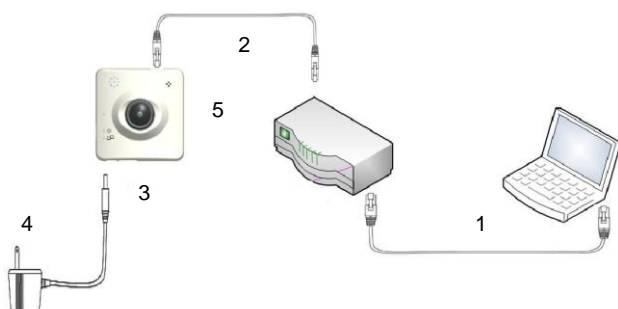
IP panorama camera SNC-3342

To operate the panorama camera, please follow these steps:

1. Install the camera in the desired location.
2. Connect the camera to power using a suitable power adapter (12 V DC) or via PoE (PoE switch or PoE injector required).



3. Connect the camera to the network using a LAN cable.
The network LED lights up in orange.



1. Prepare a PC/laptop with an Ethernet link to the network.
2. Connect the LAN port (RJ45) of the camera to a network switch/hub.

No. 3 and 4 are not necessary if PoE is used.

3. Plug-in the power jack.
4. Connect the 12 V DC adapter to power..
5. Check the network LED status.

4. Insert the CD (included in the delivery) into your PC/laptop and install the IP-finder.
5. The IP-finder displays an IP address for the camera. Double-click on the IP address and the Internet Explorer comes up automatically. In case this doesn't work, you may also enter the IP address (as shown by the IP-finder) manually into the Internet Explorer. Using the IP-finder, another IP address can be assigned to the camera, if required.

Note:

The camera comes with a default IP address:

Default IP address: 192.168.1.168 (or DHCP, if available)
User name: admin
Pass word: 9999

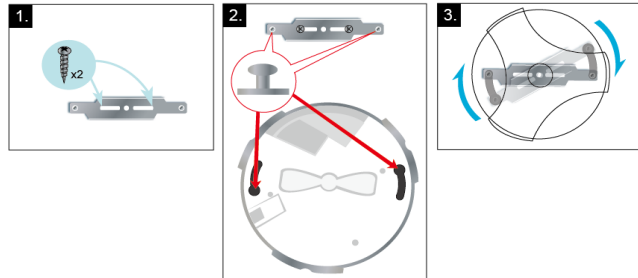
Please refer to the following chapters in this user manual for further information on camera configurations.

QUICK INSTALLATION GUIDE

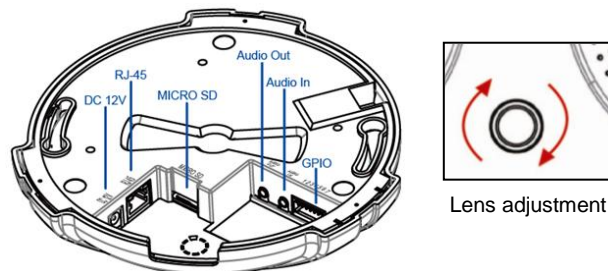
IP panorama camera SNC-6632

To operate the panorama camera, please follow these steps:

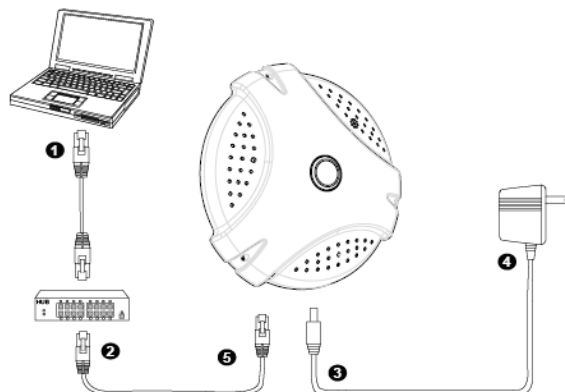
1. Install the camera in the desired location.



2. Connect the camera to power using a suitable power adapter (12 V DC) or via PoE (PoE switch or PoE injector required).



3. Connect the camera to the network using a LAN cable. The network LED lights up in orange.



1. Prepare a PC/laptop with an Ethernet link to the network.
2. Connect the LAN port (RJ45) of the camera to a network switch/hub.

No. 3 and 4 are not necessary if PoE is used.

3. Plug-in the power jack.
4. Connect the 12 V DC adapter to power.
5. Check the LED status (power/network).

4. Insert the CD (included in the delivery) into your PC/laptop and install the IP-finder.
5. The IP-finder displays an IP address for the camera. Double-click on the IP address and the Internet Explorer comes up automatically. In case this doesn't work, you may also enter the IP address (as shown by the IP-finder) manually into the Internet Explorer. Using the IP-finder, another IP address can be assigned to the camera, if required.

Note:

The camera comes with a default IP address:

Default IP address: 192.168.1.168 (or DHCP, if available)
User name: admin
Pass word: 9999

Please refer to the following chapters in this user manual for further information on camera configurations.

Part I: Camera connections, cabling, technical specifications**1. General****1.1 Included items**

- 1x IP camera SNC-3342 or SNC-6332
- 1x CD (IP-Finder and user manual)
- 1x Quick installation guide
- 1x Mounting bracket for SNC-6332
- 1x Camera stand/bracket for SNC-3342

1.2 System requirements

To control the IP camera via the web browser, please ensure your PC has a good network connection and meets the system requirements as described below.

Item	System requirement
Personal Computer	1. Intel® Pentium® M, 2.16 GHz or Intel® Core™2 Duo, 2.0 GHz 2. 2 GB RAM or more
Operating System	Windows VISTA / Windows XP / Windows 7
Web browser	Microsoft Internet Explorer 6.0 or higher
Network Card	10Base-T (10 Mbps) or 100Base-TX (100 Mbps)
Viewer	ActiveX control plug-in for Microsoft IE

1.3 Dimensions

SNC-3342:



SNC-6332:



All dimensions in mm. Pictures not true to scale.
Illustrations may vary from the actual product.

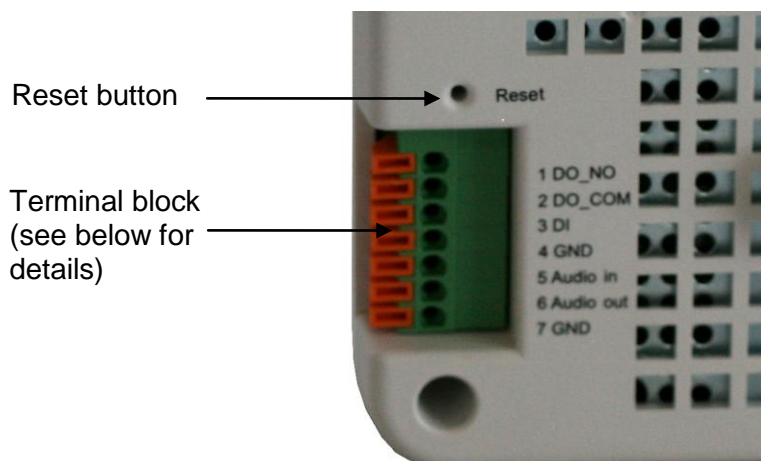
1.4 Control elements and connectors

1.4.1 SNC-3342

Camera side view:



Camera rear view view:

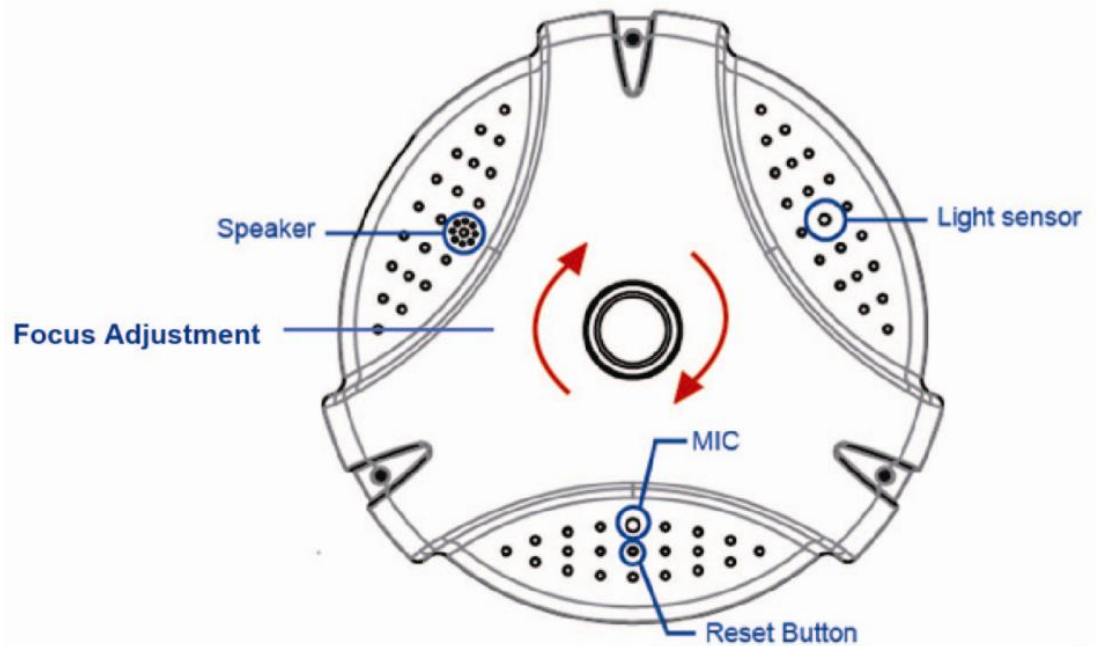


Terminal block: Pin assignments:

Pin	Function	Description
7	GND	2-way audio connector.
6	Audio Out	
5	Audio In	
4	GND	Connect Pin 3 (DI) to Pin 4 (GND) to activate the input contact.
3	DI	
2	DO_COM	When activating the output contact, Pin 7 (GND) is connected to Pin 2 (DO_COM). Normal Open status.
1	DO_NO	

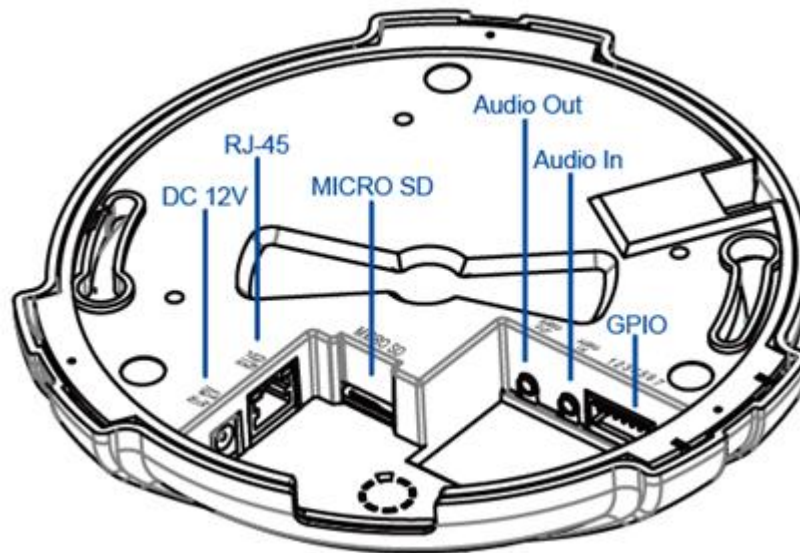
1.4.2 SNC-6332

Camera front view:



Interface	Description
Light sensor	The light sensor is for detecting the camera's environmental illumination. At night/in darkness, the IR cut filter is switched off to let infrared light pass through for clear night view.
MIC (microphone)	The camera has a built-in microphone which is hidden in the pinhole located on the front panel.
Lens focus adjustment	Turn the lens to adjust the focus to get the best image. If necessary, clean the lens with a soft cotton cloth.
Speaker	The camera has a built-in speaker which is hidden in the pinhole located on the front panel.
Reset button	<p>This button is hidden in the pinhole. It is used to restore factory default settings. To do so, please follow these steps:</p> <ol style="list-style-type: none">1. Unplug the power jack to turn off the camera.2. Insert a pin into the reset hole and press and hold the reset button for approx. 10 seconds.3. Plug-in the power jack to turn on the camera while keep pressing the reset button. The power LED will start flashing after a short while.4. Release the pin when the LED starts quick flashing. The camera is now restored to factory default.

Camera rear view:

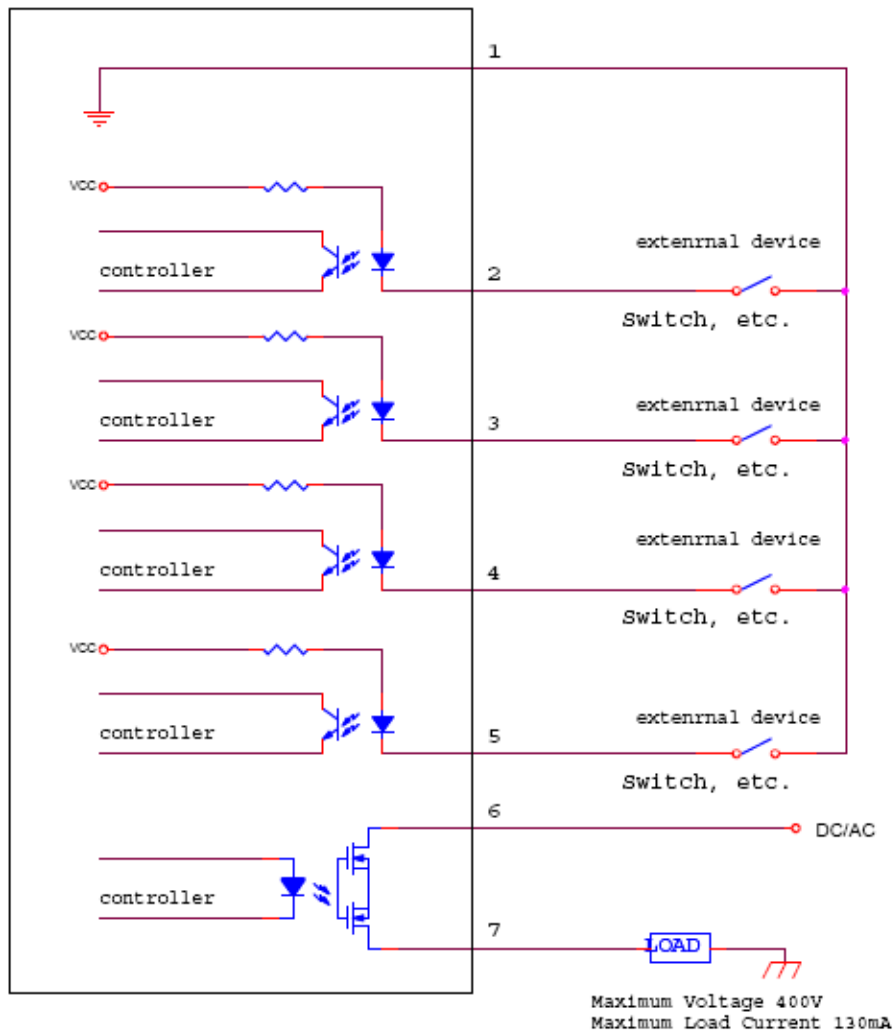


Interface	Description
Power jack	The input power is 12 V DC, 2A.
RJ-45 LAN socket	Connect to PC or hub/switch. For connection to 10Base-T Ethernet or 100Base-TX fast Ethernet cabling. Please use CAT-5 cable to connect the camera to a 100Mbps fast Ethernet network switch or hub. <u>Note:</u> Only use one power source, either from DC or from 802.3af Power-over-Ethernet (PoE).
Micro SD card slot	The camera has a built-in micro SD card slot which is used for image/video event recording. <u>Note:</u> The SD card must only be ejected or inserted when the camera is turned off.
Audio IN	Connect a microphone to the camera. Please use an active-type microphone.
Audio OUT	Connect a loud speaker to the camera. This is for voice alerting and 2-way audio. Please use an active-type speaker.
GPIO	7 pin terminal block (see following table for details).

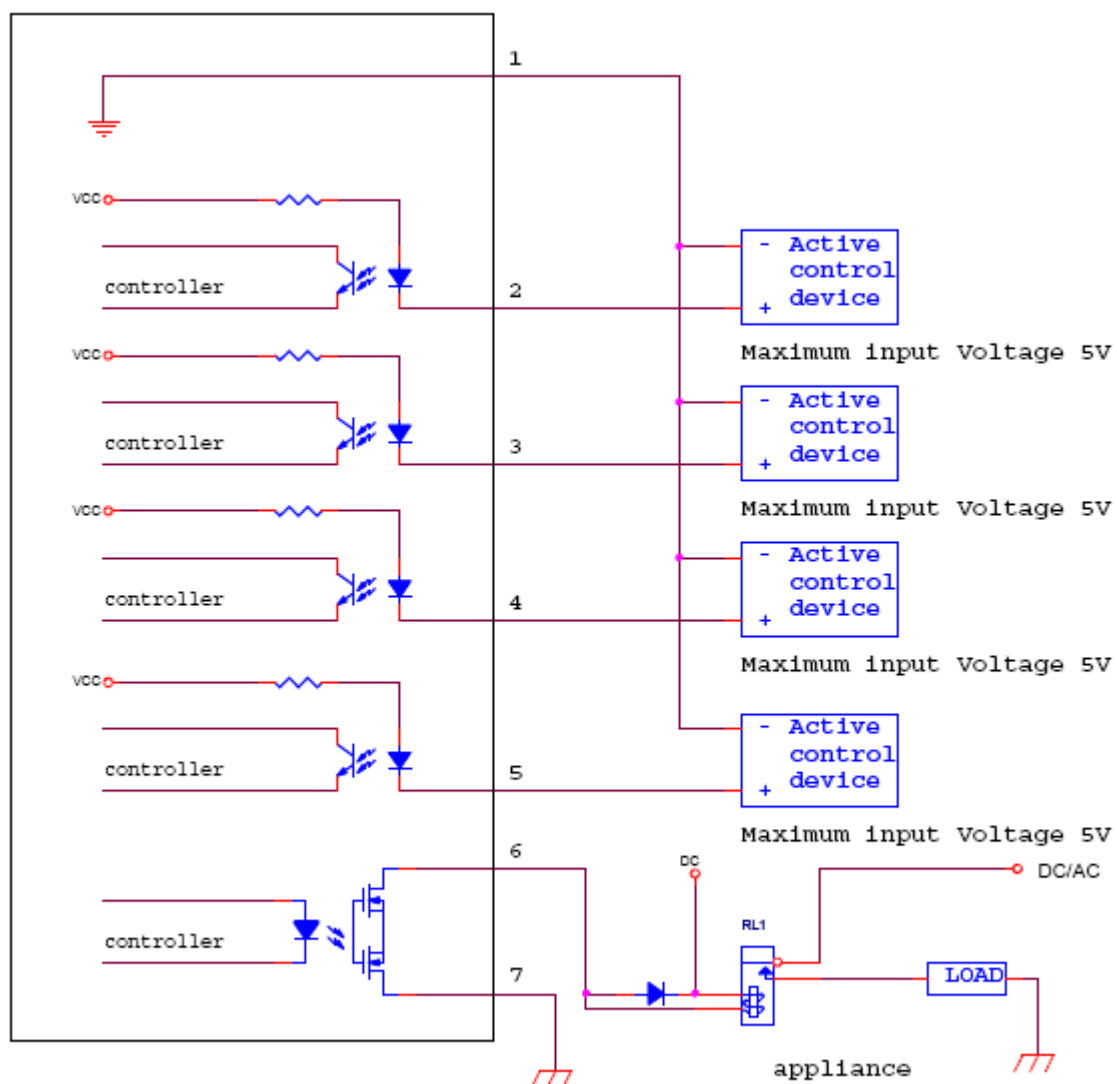
I/O terminal block: Pin assignments:

Pin	Function	Description
1	GND	Four sets of digital input, DI1 until DI4. The internal device is also photo-coupled electrical relay. In practice, the external device can be simply an on/off switch. Four sets of on/off switches can be connected as different trigger source.
2	Digital input 4	
3	Digital input 3	
4	Digital input 2	
5	Digital input 1	
6	DO_NO	When activating the output contact, Pin 7 (GND) is connected to Pin 2 (DO_COM). Normal Open status
7	DO_COM	

Application 1:

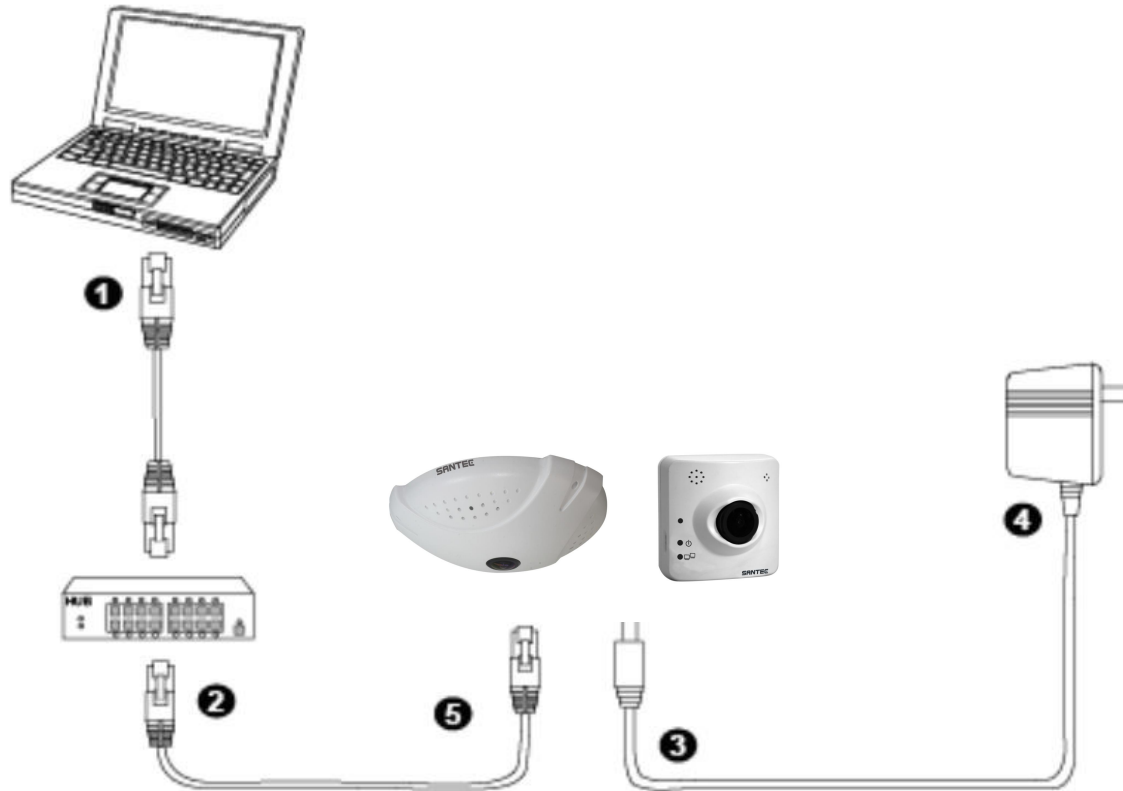


Application 2:



2. Camera installation

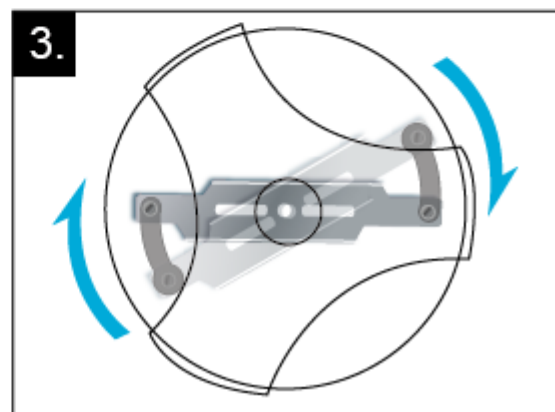
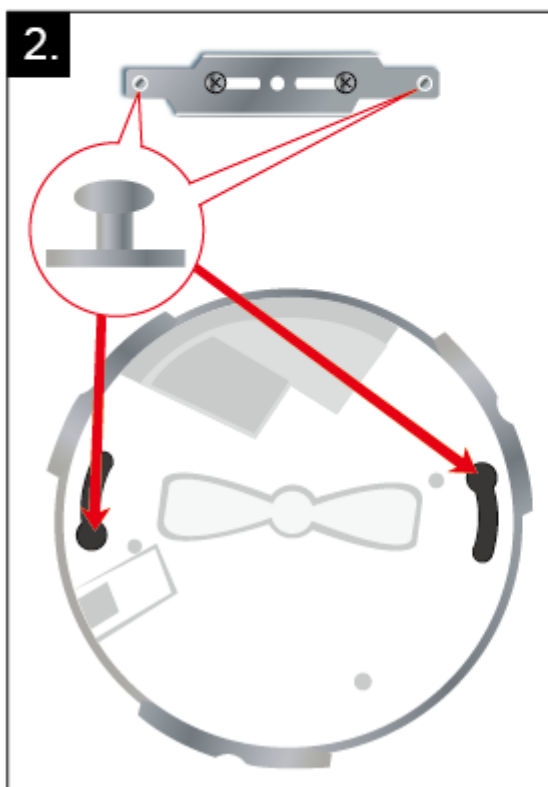
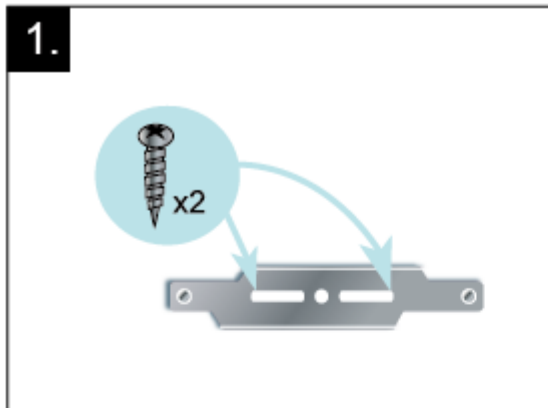
2.1 Connect to power



1. Prepare a PC/notebook with an Ethernet link to the network.
2. Connect the LAN port (RJ45) of the camera to a network switch/hub.
3. Plug-in the power jack.
4. Ensure that the power adaptor specification matches the power system (110 V or 220 V) and connect the adaptor to the outlet.
5. Check the LED status (power/network).

2.2 SNC-6332: Installation using the mounting bracket

Please follow the steps below to mount the camera using a mounting bracket.



3. Technical specifications

Camera	SNC-3342	SNC-6332
Camera type	180° panorama IP camera	360° panorama IP camera
Sensor type	2 mega pixel CMOS sensor	
Resolution (pixel)	2 MP (1600 x 1200)	
Video codec	H.264 / MJPEG	
Max. frame rate	15 fps at 2 MP (1600 x 1200)	
Number of video streams	2	
Video stream 1	1600 x 1200 800 x 600 640 x 480 at 15 fps	
Video stream 2	640 x 480 320 x 240 at 15 fps	
Lens mount	Internal	
Iris control	Manual	
Lens type	Fix lens	
Focal length	1.25 mm / F2.0	
Picture angle (horizontal)	180°	360°
Sensitivity	0.1 (color)	
IR cut filter	Yes	
Day/night mode adjustment	Auto / color / BW / external	
Automatic Gain Control (AGC)	Yes	
Digital Noise Reduction (DNR)	No	
White balance	Auto / cloudy / sunny / indoor	
Backlight compensation	No	
Wide Daynamic Range (WDR)	No	
Digital zoom	Yes	
EasyView PTZ	Yes	
Mirroring (vertical)	Yes	
Motion detection	Yes	
Privacy zones	No	
Tampering alarm	No	
Camera title	Yes	
Video output	No	
Audio support	2-way	
Speakers	Yes	
Microphone	Yes	
Audio input/output	1/1	
Audio codec	G.711 / AAC	
Alarm contacts I/O	1/1	

(continue on next page)

Camera	SNC-3342	SNC-6332
Alarm management	HTTP, FTP, SMTP	
Schedule	Yes	
Management software support	NUUO, Genetec and others	
Security features	HTTPS, IP filter, IEEE 802.1X	
Supported protocols	UPnP, Bonjour, DHCP, FTP, HTTP, SMTP, RTSP	
Internal memory	Micro SD card (optional)	
Video Content Analytics (VCA)	No	
Ethernet connector	RJ-45	
Ethernet standards	10Base-T / 100Base-TX	
Classification	IP-44	
Vandal-proof	No	
Heater & fan	No	
Installation	Wall mount	Ceiling mount
Camera mounting	Screw fastening	
Housing color	White	
Housing material	Plastic	
Integrated LEDs	No	
Voltage	12 V DC / PoE	
PoE standard	IEEE 802.3af	
Power consumption	6 watt	
Operating temperature	0° to +50° C	
Storage temperature	-10° to +50° C	
Rel. humidity	20-80% non-condensing	
Dimensions	85 x 85x 56 mm (WxHxD)	190 x 60 mm (D x H)
Weight	Approx. 240 g	Approx. 370 g
Certification	CE, RoHS	
Items included in the delivery	Bracket, quick installation guide, CD (IP-Finder, user manual)	
Supported languages	English, German	

Subject to technical changes without prior notice. Errors excepted.

Appendix: Setup Internet security

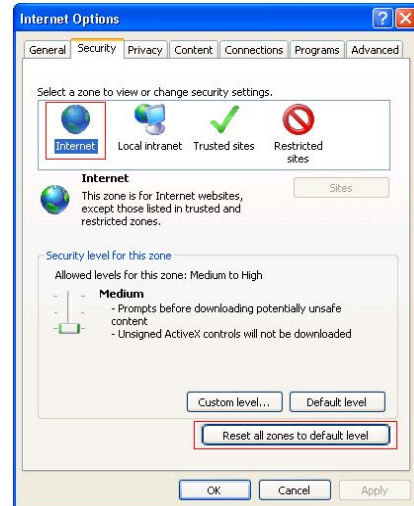


Internetoptionen

If ActiveX control installation is blocked, please either set the Internet security level to default or change ActiveX controls and plug-in settings.

Internet security level: Default:

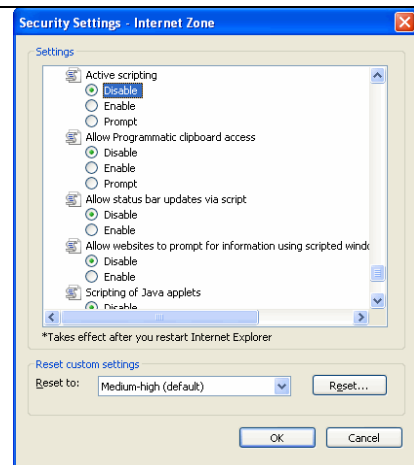
1. Open the „Internet Options“ menu.
2. Select “Security”.
3. Click on „Reset all zones to default level“.
4. Confirm by clicking “Apply” or “OK”.



If the default settings don't work, please use the customized settings for ActiveX Controls.

Internet security level: Customized:

1. Open the „Internet Options“ menu.
2. Select “Security”.
3. Click on „Custom level“
4. Enable the following options:
 - All previously unused ActiveX Controls run without prompting.
 - Allow scriptlets.
 - Automatic promptinf for ActiveX Controls.
 - Binary and scripts.
 - Display video and animation on a webpage that does not use external media player
 - Download signed ActiveX controls
 - Download unsigned ActiveX Controls.
 - Initialize and script ActiveX controls are not marked as safe for scripting
 - Run ActiveX Controls and plug-ins.
 - Script ActiveX Controls are marked as safe for scripting. .
5. Confirm by clicking “OK”.
6. Confirm by clicking „Apply“ or „OK“.



To activate all settings in the Internet Explorer, please restart it!

Part II: Camera configuration and control via the web

1. General

The camera is equipped with a user-friendly browser-based configuration interface. In this part of the user manual, information on system related settings and camera settings will be described in detail.

Start your Web browser and enter the URL or IP address in the address field.

Default IP address: 192.168.1.168
(or DHCP-assigned address if available (see IP-Finder))
Default user name: admin
Default password: 9999

When prompted by the Internet security note, please click on “install”.

The live view of the camera is now displayed.

2. Menu overview

Once the camera is connected to the power and the camera is accessed via the web browser, you will see the following main tabs on the top of the screen:
<Live view>, <Video>, <Camera>, <Event>, <Schedule>, <Network> and <System>.



2.1 Administration page

Click on the <Admin> button to access the administration page. Here you can make a number of adjustments and settings (see the following chapters).

2.2 Live view

Display mode

Admin button
(go to administration page)

Language setting

PTZ control panel

Action buttons
(Full screen, speaker, talk, snapshot, recording)

Channel selection

The screenshot shows the SANTEC live view interface. The top bar includes the SANTEC logo, the model number 'SNC-6332 | CH1', and a 'DISPLAY MODE' dropdown. The main area displays four camera feeds. On the right, there is a 'PTZ' control panel with a directional pad and a 'PTZ Preset' table. The bottom bar contains 'Action buttons', a 'Channel' dropdown, and system information.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

Language settings:

On the live view page, you can select your language by clicking on the respective flag icon: English or German.

Admin button:

To exit the <Live view> and to make changes to the camera set-up, click on the <Admin> button.

Display mode:

As described in chapter 2.4.2 ("Camera > Advanced"), determine how the camera is installed, either on the wall, on the ceiling or on the table. Depending on the selected mounting, the following options regarding the display modes are available:

- **Wall mount:**

If the camera is installed on a wall, the following display modes are available: "Original view", "broad view", "quad view with source" and "triple view".

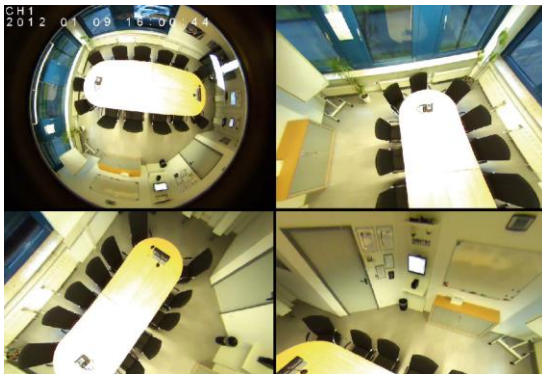
Original view:



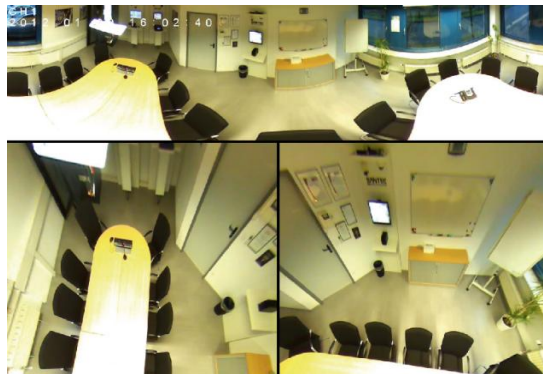
Broad view:



Quad view with source:



Triple view:



- **Ceiling mount:**

If the camera is installed on a ceiling, the following display modes are available:
“Original view”, “broad view”, “quad view”, “quad view with source”, “double view” and
“triple view”.

Original view:



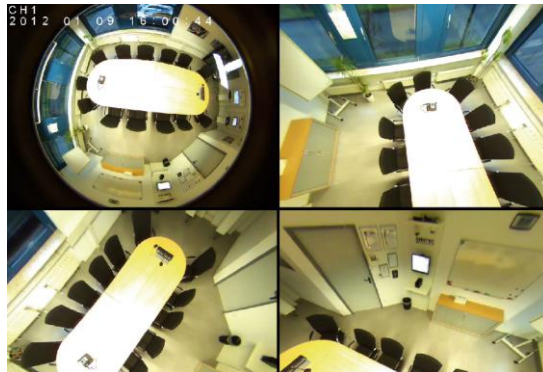
Broad view:



Quad view:



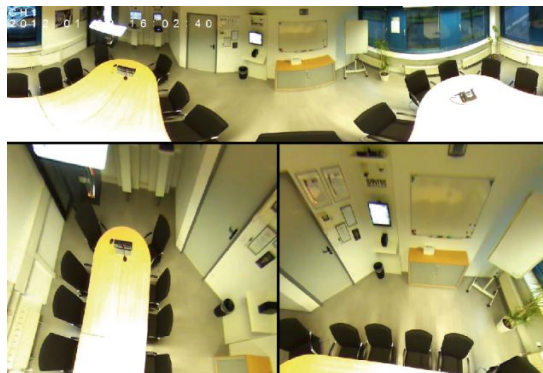
Quad view with source:



Double view:



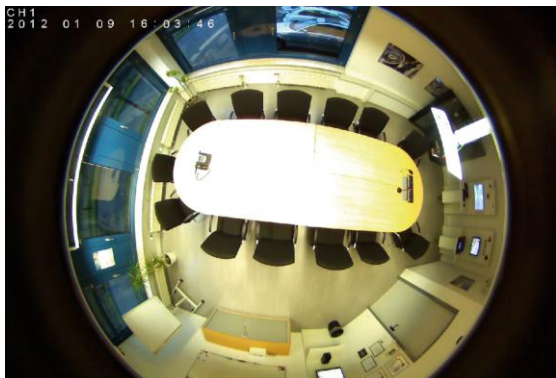
Triple view:



- **Table mount:**

If the camera is installed on a table, the following display modes are available:
“Original view” and “double view”.

Original view:



Double view:

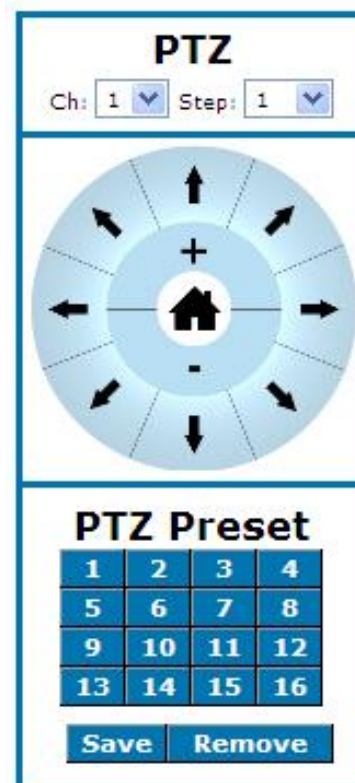


PTZ control panel:






The PTZ control panel is only displayed in “quad view”,
“quad view with source” or “triple view” mode.

- **Channel:**
Select the channel number.
- **Step:**
Select the speed of the pan/tilt function (1-10).
- **Pan/tilt arrows:**
Click to move the image.
- **“+” and “-”:**
Click to zoom in/out.
- **PTZ presets:**
List of presets.

Alternatively, instead of using the PTZ control panel, you may simply click into the live view picture to move it (SANTEC “EasyViewPTZ” technology).



Action buttons:

- Full screen 
When activated, one channel is displayed in 4 different views.
- Speaker 
Click on this button to mute/activate the audio function.
Note:
This function is only open to a “user” who has been granted this privilege by the administrator.
- Talk 
The talk function allows the local site to talk to the remote site. Click on the button to switch it to on/off.
Note:
This function is only open to a “user” who has been granted this privilege by the administrator.
- Snapshot 
Click on this button and a JPEG/JPG snapshot is made of the live picture. By default, it will be stored on your C:\ drive.
Note:
For users with Windows 7 operating system, it is required to log on as an administrator to implement the snapshot function.
- Recording 
Click on this button and the live picture is recorded. The recording button lights up in bright red colour while recording. The recorded clip is by default saved to your C:\ drive.
Note:
For users with Windows 7 operating system, it is required to log on as an administrator to implement the snapshot function.

2.3 Video

Under the tab <Video>, there are submenus including <General> and <Advanced>.

2.3.1 General

The video setting can be found under the path: **Video > General**

The screenshot displays the SANTEC web interface. At the top, the SANTEC logo and navigation links (LIVE VIEW, VIDEO, CAMERA, EVENT, SCHEDULE, NETWORK, SYSTEM) are visible. Below the navigation bar, the page title is "SANTec SNC-6332 | CH1". The left sidebar contains three tabs: VIDEO, GENERAL (selected), and ADVANCED. The main content area is titled "General" and features an "OSD Setting" section. This section includes three checked checkboxes: "Enable", "Camera Name" (with a text input field containing "CH1" and a "(20 character max)" label), and "Date/Time". A "Save" button is located at the bottom right of the OSD Setting section.

Check the OSD “enable” box to display the camera name (max. 20 characters) and date/time.

2.3.2 Advanced

The video setting can be found under the path: **Video > Advanced**

The screenshot displays the 'Advanced' video settings interface for a SANTEC camera. The interface includes a top navigation bar with links for LIVE VIEW, VIDEO, CAMERA, EVENT, SCHEDULE, NETWORK, and SYSTEM. Below this, a sidebar on the left shows 'VIDEO' as the active section, with 'GENERAL' and 'ADVANCED' sub-options. The main content area is titled 'Advanced' and contains two sections: 'Stream 1 Setting' and 'Stream 2 Setting'. Each section has a blue header and a light gray body with various settings. Stream 1 settings include RTSP Path (v00), Image Format (H.264), Resolution (1600 x 1200), GOP (15), Video Mode (CBR), Frame Rates (15), and Target Bit Rates (2000). Stream 2 settings include RTSP Path (v01), Image Format (H.264), Resolution (640 x 480), GOP (15), Video Mode (VBR), Frame Rates (15), and Quality Level (Best). A 'Save' button is located at the bottom right of the settings area.

Stream 1 Setting	
RTSP Path:	v00
Image Format:	H.264
Resolution:	1600 x 1200
GOP:	15 (2~32)
Video Mode:	CBR
Frame Rates:	15 (5~15 FPS)
Target Bit Rates:	2000 (1000~6000 Kb)

Stream 2 Setting	
RTSP Path:	v01
Image Format:	H.264
Resolution:	640 x 480
GOP:	15 (2~32)
Video Mode:	VBR
Frame Rates:	15 (5~15 FPS)
Quality Level:	Best

Save

Stream 1 setting:

- RTSP path:
This is the stream ID used for RTSP client streaming connection, such as VLC player (default: v00).
- Image format:
Choose MJPEG or H.264.
- Resolution:
1600 x 1200, 800 x 600, 640 x 480.
- GOP:
Choose the number of P-frame or B-frame between I-frame from 2 to 32. The lower the number, the higher the video quality you will get. On the other hand, it will consumer more network bandwidth and storage size.
- Video mode:
Choose between variable bit rate (VBR) and constant bit rate (CBR):
 - VBR:
Choose the quality level "best", "good" or "standard". For some environments, it is important to ensure a high video quality level. However, a high quality level will consume more network bandwidth.
 - CBR:
Choose target bit rate range from 1000 Kb to 6000 Kb. For some environments, it is very helpful for network bandwidth management but the video quality will be variable up to the complexity of video scene.
- Frame rates (fps):
Choose the number of frames to be displayed per second (from 5 to 15).

Stream 2 setting:

Proceed in the same way as for stream 1 (described above).

2.4 Camera

Under the tab <Camera>, there are submenus including <General> and <Advanced>.

2.4.1 General

The camera setting can be found under the path: **Camera > General**

[LIVE VIEW](#) |
 [VIDEO](#) |
 [CAMERA](#) |
 [EVENT](#) |
 [SCHEDULE](#) |
 [NETWORK](#) |
 [SYSTEM](#)

SANTEC SMC-6332 | CH1

CAMERA

GENERAL

ADVANCED

General

Camera General Setting

Brightness:	<input type="range"/>	<input type="button" value="0"/>
Hue:	<input type="range"/>	<input type="button" value="0"/>
Saturation:	<input type="range"/>	<input type="button" value="0"/>
Contrast:	<input type="range"/>	<input type="button" value="0"/>
Sharpness:	<input type="range"/>	<input type="button" value="0"/>

Audio Setting

☒ Audio Enable

Encoder: G711 ▾

Bitrate: 64000

Input of Listen Pattern:

☒ Mic In ☐ Line In

Output of Talking Pattern:

☒ Speaker Out ☐ Line Out

Web Record Setting

Save Path:

File Name:

Web Snapshot Image Setting

Save Path:

File Name:

Default Save

Camera general setting:

The following parameters can be adjusted in terms of image color/vision:

- Brightness: Luminance of image.
- Hue: Color hue can be modified.
- Saturation: Intensity of a specific color.
- Contrast: Difference in color and light between parts of an image.
- Sharpness: Sharpness of image.

Audio setting:

- Audio enable: Turn on/off the audio.
- Encoder: Select "G711" or "AAC".
- Input of listen pattern: Select the audio source: „Mic in“ or „Line in“.
- Output of talking pattern: Select the audio source: „Speaker out“ or „Line out“.

Web record setting:

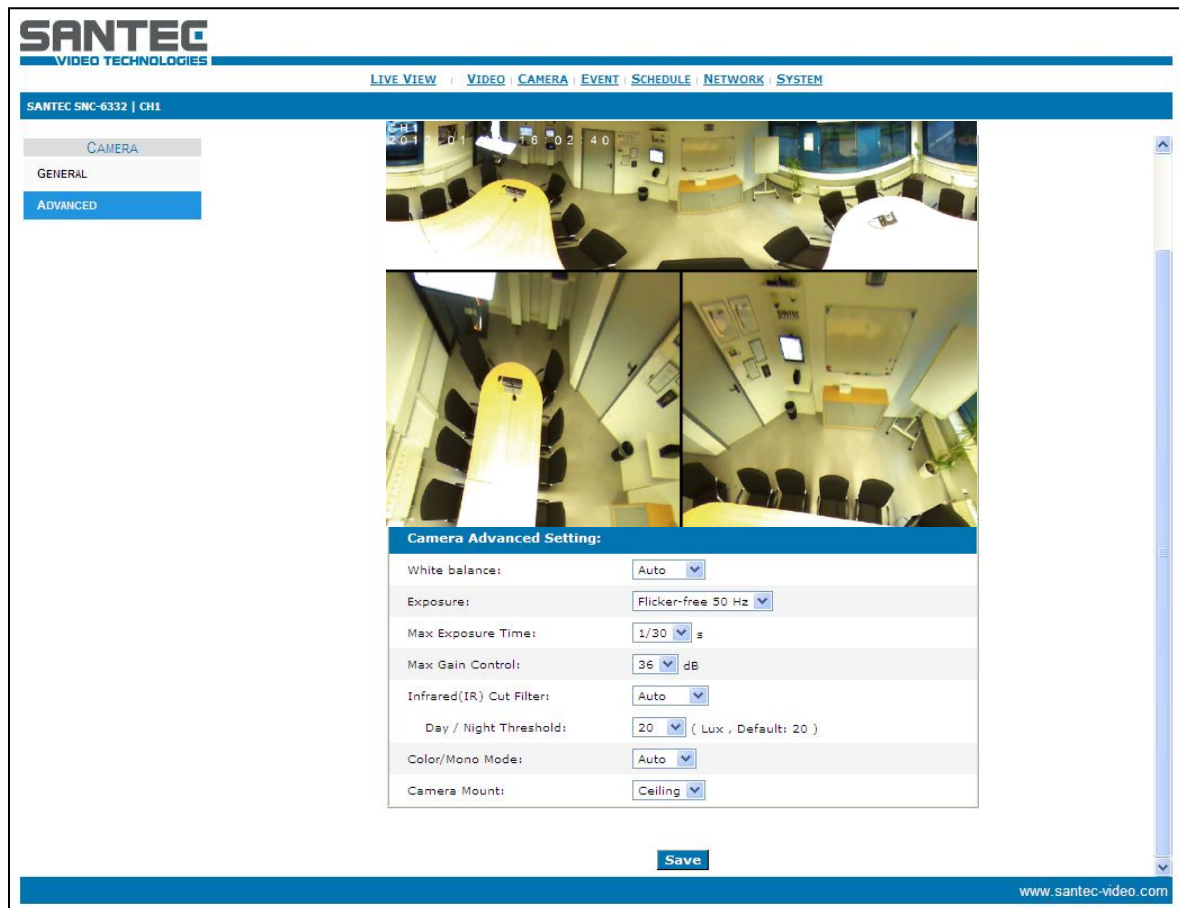
- Save path / File name: Click on the "Browse" button to select the desired path to save the video file.

Web snapshot image setting:

- Save path / File name: Click on the "Browse" button to select the desired path to save the video file.

2.4.2 Advanced

The camera setting can be found under the path: **Camera > Advanced**



White balance:

Adjustment to compensate for different environments in terms of light source. Users can choose from “auto”, “hold”, “sunny”, “cloudy” or “indoor” so that the camera can determine the correct color compensation due to different light environments. Please note that “hold” indicates that the parameter will apply default settings.

Exposure:

Anti-flicker setting for image sensor to fit the net frequency. For instance, the power frequency is 50Hz for most European countries, while 60Hz is typical for the USA. This setting is therefore regionally different. Default setting is 50Hz.

Max exposure time:

Refers to shutter speed.

Max gain control:

Amplification factor for incoming light.

Infrared (IR) cut filter:

- Auto:
Default setting.
- Enable:
Indicates that the filter is enabled to cut the IR light.
- Disable:
Indicates that the filter is disabled and allows IR light (such as IR LED illuminator) to enter into the camera.

Day / night threshold:

The threshold to change from day to night mode. Default setting is 20 lux. This means that if the illumination is < 20 lux, the camera will automatically change to night mode and allow infrared light to enter into the camera.

Color / mono mode:

Default setting is “auto”. It can also be forced to display color image even in a low light environment.

Camera mount (*only available for SNC-6332*):

Choose camera mounting type: “wall”, “ceiling” or “table”.

Depending on the selected mounting type, different display options are available (see chapter 2.2 “Live view”).

2.5 Event

Under the tab <Event>, there are submenus including:
<Event server>, <Motion detection>, <I/O ports> and <Event configuration>.

2.5.1 Event server

The event setting can be found under the path: **Event > Event server**.

Add FTP:

- **Name:**
Name the FTP server.
- **Network address:**
Enter the network address of the FTP server.
- **Upload path:**
Enter the desired upload path for events.
- **Login information:**
Enter the user name and the password for the FTP server.

Add HTTP:

- **Name:**
Enter the name of the HTTP server.
- **URL:**
Enter the network address of the HTTP server.
- **User name / password:**
Enter the user name and the password for the HTTP server.

Event Server

Event Server List

Name	Protocol	Network Address	Upload Path	User Name
------	----------	-----------------	-------------	-----------

AddFTP.. **AddHTTP..** **Remove**

(Note: The maximum number of event servers is 10.)

HTTP Server

Name:

NewHTTPServer

URL:

http://

User Name:

Password:

Save

2.5.2 Motion detection

The motion detection setting can be found under the path: **Event > Motion detection**.

Motion Detection List

Windows Area Name

Add Del

(Note: The maximum number of motion detections is 10.
Set New Motion Detection Area :
1. Click 'Add' and rename the windows area.
2. Drag a detection area on the image.)

Motion Detection Setup

Windows Area Name:

Trigger Level :

Sensitivity :

(Sensitivity value:0~100[low~High])

Color: =

☒ View All Windows
☐ View Selected Window

Save

To create a motion detection area, follow these steps:

1. Click on “Add” to set-up a detection area.
2. Give a name to this window area.
3. Select the trigger level and the sensitivity level for this detection window (0-100).
4. Select a color for the detection window by clicking on the color palette.
5. Click in the picture and drag the mouse to create a motion detection window.
6. Click on “Save” to store the configurations.

The thus configured detection window will be displayed in the motion detection list.

Note:

The maximum number of detection windows is 10.

The motion detection window needs to be modified if users change the video layout.

2.5.3 I/O ports

The I/O port setting can be found under the path: **Event > I/O ports**.

The screenshot displays the SANTEC web interface for the SNC-6332 camera. The top navigation bar includes links for LIVE VIEW, VIDEO, CAMERA, EVENT, SCHEDULE, NETWORK, and SYSTEM. The left sidebar shows a menu with options: EVENT, EVENT SERVER, MOTION DETECTION, I/O PORTS (highlighted), and EVENT CONFIGURATION. The main content area is titled 'I/O Ports' and contains five configuration sections: Input Ports Setting 1, Input Ports Setting 2, Input Ports Setting 3, Input Ports Setting 4, and Output Ports Setting. Each section lists the Name and Current State of the port.

Input Ports Setting 1	
Name:	Input1
Current State:	high

Input Ports Setting 2	
Name:	Input2
Current State:	high

Input Ports Setting 3	
Name:	Input3
Current State:	high

Input Ports Setting 4	
Name:	Input4
Current State:	high

Output Ports Setting	
Name:	Output1
Current State:	low

The relay inputs and outputs are photo-coupled (see chapter 1.4.2 for I/O terminal connectors' pin assignment).

2.5.4 Event configuration

The event configuration setting can be found under the path: **Event > Event configuration**.

Add...
Remove

(Note: The maximum number of events is 10.
Fu=FTP Upload, Eu=Email Upload, Du=Disk Upload, O=Output Port, En=Email Notification,
Hn=HTTP Notification, Tn=TCP Notification.)

Event Type Setup

Name:

Set min time between triggers: (max 23:59:59)

Respond to Trigger

☒ Always

☐ During time between

☒ Sun
☐ Mon
☐ Tue
☐ Wed
☐ Thu
☐ Fri
☐ Sat

Start Time : (max 23:59:59)

Duration : (max 168:00:00)

☐ Never

Trigger by

When Triggered...

☐ Upload Images

☐ Activate Output Port

☐ Send Email Notification

☐ Send HTTP Notification to

☐ Send Message Notification (TCP)

To add an event trigger, follow these steps:

1. Click on "Add" and the setup panel will be expanded (as shown above).
2. Give a name to this event.
3. Set the time interval between the triggers.
4. Set the time period for the trigger. Choose "Always" or "During time between" or "Never".
5. Triggered by: Select "motion detection" from the drop-down menu.
6. Choose the corresponding action once a motion has been detected.
7. Click on "Save" to store the configurations.

2.6 Schedule

Under the tab <Schedule>, there are submenus including: <General> and <Storage>.

2.6.1 General

The schedule setting can be found under the path: **Schedule > General**.

SANTEC
VIDEO TECHNOLOGIES

LIVE VIEW | VIDEO | CAMERA | EVENT | **SCHEDULE** | NETWORK | SYSTEM

SANTEC SNC-3342 | CH1

Schedule

☒ Enabled

Stream: ☒ 1 ☐ 2

Slice File Size: 50 (MB)

Save Device Type: Local Disk

All	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon.																								
Tue.																								
Wed.																								
Thu.																								
Fri.																								
Sat.																								
Sun.																								

☒ Scheduled

Save

Follow the steps below on how to set a schedule:

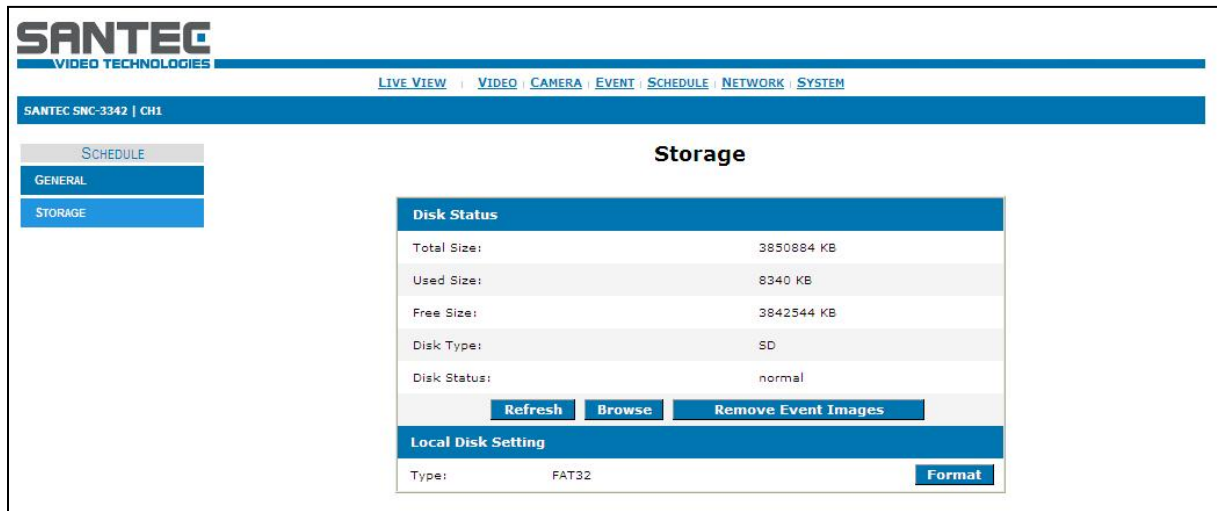
1. Check the "Enabled" box.
2. Select the video stream to be recorded.
3. Define the size of each sliced file (MB).
4. Define the day of the week and the time (by hour of the day) of the scheduled period to be recorded (simply click into the respective field).
5. Click on "Save" to activate the schedule.

Note:

Recording files are saved to the micro SD card. Hence it is necessary that a SD card is inserted into the respective slot in order for the schedule to be displayed.

2.6.2 Storage

The schedule setting can be found under the path: **Schedule > Storage**.



Here, information on the storage status is displayed. A message is displayed when a recording is currently running.

Note:

The micro SD card must not be removed during the recording process.

2.7 Network

Under the tab <Network>, there are submenus including:
<General>, <Advanced>, <SMTP (e-mail)> and <DDNS>.

2.7.1 General

The network setting can be found under the path: **Network > General**.

The screenshot displays the web interface for the SANTEC SNC-6332 camera. The top navigation bar includes links for LIVE VIEW, VIDEO, CAMERA, EVENT, SCHEDULE, NETWORK, and SYSTEM. The left sidebar shows the menu structure: NETWORK (selected), GENERAL (active), ADVANCED, SMTP(E-MAIL), and DDNS. The main content area is titled 'General' and contains the following configuration options:

- ☒ DHCP Service
- ☐ Static IP Address:
 - IP Address: 10.1.1.82
 - Netmask: 255.255.255.0
 - Gateway: 10.1.3.1
 - DNS 1: 168.95.1.1
 - DNS 2: 168.95.1.1
- ☒ Enable ARP/Ping

A 'Save' button is located at the bottom right of the configuration area.

On this page, the camera's IP configuration is displayed including DHCP and static IP setting.

“Enable ARP/ping” enables the camera to accept ARP or ping packets from the network. Disabling this option may provide extra security from intentional ping.

The default IP address is 192.168.1.168 if no DHCP service is available.

2.7.2 Advanced

The screenshot displays the 'Advanced' configuration page for a SANTEC camera. The left sidebar shows a menu with 'NETWORK' selected, containing 'GENERAL', 'ADVANCED', 'SMTP(E-MAIL)', and 'DDNS'. The main content area is titled 'Advanced' and contains several configuration sections:

- NTP Configuration:**
 - ☐ Obtain NTP server address via DHCP
 - ☒ Use the following NTP server address:
 - Network address: (host name or IP address)
- HTTP Setting:**
 - HTTP Port: (0 ~ 65535, Default : 80)
- RTSP Setting:**
 - RTSP Port: (0 ~ 65535, Default : 554)
- UPnP Notification:**
 - ☒ Enable UPnP
- NAT Traversal Setting:**
 - ☐ Enable NAT Traversal

A 'Save' button is located at the bottom right of the configuration area.

NTP configuration:

Users may configure a NTP (Network Time Protocol) server so that the camera's system date and time can be synchronized with a specified time server or DHCP server.

HTTP setting:

Users may set the HTTP port that will be applied for web access. Default port = 80.

RTSP setting:

Users may set the RTSP (video) port for video data transmission. Default port = 554.

UPnP notification:

Check "Enable UPnP" so that the camera can be discovered in a UPnP compliant network.

NAT traversal setting:

Check "Enable NAT traversal" so that a client from the Internet can have access to the devices behind the router.

Note:

With UPnP enabled, the IP sharing device (router) – capable of UPnP function – will automatically be notified about the camera's NAT port.

2.7.3 SMTP (e-mail)

The screenshot displays the SANTEC web interface for configuring SMTP (E-Mail). The interface includes a top navigation bar with links for LIVE VIEW, VIDEO, CAMERA, EVENT, SCHEDULE, NETWORK, and SYSTEM. A sidebar on the left shows the configuration menu with options for NETWORK, GENERAL, ADVANCED, SMTP(E-MAIL) (which is selected), and DDNS. The main content area is titled 'SMTP(E-Mail)' and contains a form titled 'SMTP (email) Setting'. The form includes the following fields and options:

- Mail Server:** A text input field containing 'smtphost.yourdomain.name' with a placeholder '(host name or IP address)'.
- Server Port:** A text input field containing '25' with a range indicator '[0..65535]'.
- Authentication:** A checkbox that is currently unchecked.
- User Name:** A text input field containing 'username'.
- Password:** A text input field containing '*****'.
- From (Email Address):** A text input field containing 'username@yourdomain.name'.
- Send email to:** A text input field containing 'mailto@mailto.com'.

At the bottom right of the form is a 'Test' button, and at the bottom center of the page is a 'Save' button.

Configure an e-mail host for the camera which will send e-mails on behalf of the configured e-mail account to a specified mail address (also see the chapter on “event configuration”). Fill-in the information about the mail server, server port, authentication information (if required) and the sender’s e-mail address.

2.7.4 DDNS

SANTEC
VIDEO TECHNOLOGIES

LIVE VIEW | VIDEO | CAMERA | EVENT | SCHEDULE | NETWORK | SYSTEM

SANTEC SNC-6332 | CH1

NETWORK

GENERAL
ADVANCED
SMTP(E-MAIL)
DDNS

DDNS

Dynamic DNS Setting

☐ DDNS Enable

Host Name:
(Link to <http://www.dyndns.org>)

User Name:

Password:

Update Time: (600~86400 Seconds)

Response:

Save

Check the box “DDNS enable” for dynamic DNS configuration.

Host name:

Assigned name that will be used for accessing the camera.

User name / password:

Account authentication for logging on to this service.

Update time:

Periodically, the camera updates its access information in the defined time.

Response:

The camera responds to the connection information (yes or no).

2.8 System

Under the tab <System>, there are submenus including:
<Information>, <User>, <Date & time>, <Server maintenance> and <Log service>.

2.8.1 Information

The system setting can be found under the path: **System > Information**.

The screenshot shows the SANTEC web interface. At the top, there's a navigation bar with links: LIVE VIEW, VIDEO, CAMERA, EVENT, SCHEDULE, NETWORK, and SYSTEM. Below this, a sidebar on the left lists menu items: SYSTEM (selected), INFORMATION, USER, DATE & TIME, SERVER MAINTENANCE, and LOG SERVICE. The main content area is titled 'Information' and contains several sections:

System	
Model:	SNC-6332
System up time:	2012-01-27 19:24:54
Firmware version:	1.0.0.9
MAC Address:	00:1e:44:f1:10:11
ActiveX Control version:	1.0.1.150

Ethernet	
Status:	Connected
Mode:	DHCP
IP Address:	10.1.1.82
Netmask:	255.255.255.0
Default Gateway:	10.1.3.1

PPPoE	
Status:	No connection
IP Address:	none

DNS Server	
Primary DNS IP address:	168.95.1.1
Secondary DNS IP address:	168.95.1.1

DDNS	
Status:	no

At the bottom of the main content area, there is a 'Refresh' button. The footer of the page includes the website address: www.santec-video.com.

On this page, a list of system and network configuration is displayed. These data are for information only and cannot be changed on this page.

2.8.2 User

SANTEC
VIDEO TECHNOLOGIES

LIVE VIEW | VIDEO | CAMERA | EVENT | SCHEDULE | NETWORK | SYSTEM

SANTEC SNC-6332 | CH1

SYSTEM

INFORMATION

USER

DATE & TIME

SERVER MAINTENANCE

LOG SERVICE

User

User Setting

☐ Enable anonymous login (no user name or password required)

User List

User Name	User Group
admin	Administrator

Add... Remove

Save

Check the box “Enable anonymous login” if you don’t wish to have a user name displayed.

2.8.3 Date & time

SANTEC
VIDEO TECHNOLOGIES

LIVE VIEW | VIDEO | CAMERA | EVENT | SCHEDULE | NETWORK | SYSTEM

SANTEC SNC-6332 | CH1

SYSTEM

INFORMATION

USER

DATE & TIME

SERVER MAINTENANCE

LOG SERVICE

Date & Time

Current Server Time

Date: 2012-01-27 Time: 19:26:28

Set Server Time

Time Mode:

☐ Synchronize with computer time

Date: 2012-01-27 Time: 11:57:02

☒ Synchronize with NTP server

Time zone:

GMT+08 (Beijing, Hong Kong, Shanghai, Taipei)

☒ Set Manually

Date: 2012-01-27 Time: 11:56:56

(ex: 2008-01-01) (ex: 01:00:00)

Save

On this page, users may configure the system date and time as well as synchronization options with a PC and NTP server.

2.8.4 Server maintenance

The screenshot displays the SANTEC Web Interface for the SNC-6332 unit. The left sidebar contains a menu with 'SYSTEM' selected, and sub-items: INFORMATION, USER, DATE & TIME, SERVER MAINTENANCE (highlighted), and LOG SERVICE. The main content area is titled 'Server Maintenance' and contains three sections: 'Maintain Server' with 'Reboot' and 'Load default' buttons; 'Firmware Upgrade' showing device details (Model: SNC-6332, Firmware Version: 1.0.0.9, MAC Address: 00:1e:44:f1:10:11, ActiveX Version: 1.0.1.150) and an 'Upgrade' button; and 'Backup' with a 'Backup' button. Below these is an 'Upload Setting' section with an 'Upload' button.

This page provides some tools for system maintenance, such as firmware information and upgrades, backup and upload settings.

2.8.5 Log service

The screenshot displays the SANTEC Web Interface for the SNC-6332 unit, showing the 'Log Service' page. The left sidebar is identical to the previous screenshot, with 'LOG SERVICE' now highlighted. The main content area is titled 'Log Service' and contains two sections: 'Logs' with a 'Logs' link, and 'Reports' with 'Server Report' and 'Parameter List' links.

Most system operations and/or processes will be kept in a log system. The link provides the review of these records.

Notes:

Your local distributor:



www.santec-video.com